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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

50325-0108

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On September 7, 2007

Signature

Typed or printed

name Teresa Austin

Application Number

09/728,488

Filed

November 30, 2000

First Named Inventor

Sunil K. Srivastava

Art Unit

2131

Examiner

Aravind K. Moorthy

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐

applicant/inventor.

☐

assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

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Registration number 56,181☐

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September 7, 2007

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐

*Total of _____ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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In re application of:

Confirmation No.: 4277

Sunil K. SRIVASTAVA

Group Art Unit No.: 2131

Serial No.: 09/728,488

Examiner: MOORTHY, Aravind K.

Filed on: November 30, 2000

For: METHOD AND APPARATUS PROVIDING
SECURE MULTICAST GROUP
COMMUNICATION

ATTACHMENT TO PRE-APPEAL BRIEF REQUEST FOR REVIEW

The final Office Action mailed September 11, 2007 contains clear errors and fails to show that the cited references describe or suggest all features of Claims 1-2, 4, 6, 10, 12, 15-16, 20, 23-24, 31, 34, 38, 42, 47-48, 51, 54-56, 59, and 81-122. Since a rejection under 35 U.S.C. § 102 that does not show prior disclosure of specific claimed features is clearly erroneous, the claims should be allowed for the reasons discussed below.

Claims 1-2, 4, 6, 10, 12, 15-16, 20, 23-24, 31, 34, 38, 42, 47-48, 51, 54-56, 59, and 81-122 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Mittra, U.S. Pat. No. 5,748,736 ("MITTRA"). For brevity, this attachment addresses only the rejections of the independent Claims 1, 59, 81, and 102.

1. Rejection of Claim 1 over MITTRA.

Claim 1 comprises the features of:

...;

the plurality of multicast proxy service nodes are logically represented by a first binary tree, wherein:

each node of the first binary tree is associated with a domain of a plurality of domains of a directory service that is distributed across the wide area network;

...;

creating and storing a second binary tree that represents the plurality of member nodes, wherein:

the second binary tree is stored in a particular domain of the plurality of domains of the directory service that is distributed across the wide area network;

...;

when an additional member node joins the multicast group, determining a new group session key by replicating a branch of the second binary tree.

The final Office Action asserts that MITTRA describes the above features of Claim 1. This assertion is a clear error.

- A. MITTRA does not teach or suggest the feature of Claim 1 of determining a new group session key by replicating a branch of the second binary tree when an additional member node joins the multicast group.

The final Office Action asserts that the above feature of Claim 1 is described in col. 8, lines 3-32 of MITTRA. This assertion is incorrect.

In col. 8, lines 3-14, MITTRA describes that a Group Security Controller (GSC) and a new member may establish a secure channel that is separate from the communication channel established between the GSC and existing members. Once the GSC and the new member have authenticated each other and have agreed on a secret, the GSC may provide the new member with information that will allow the new member to encrypt/decrypt multicast transmissions from the GSC to the member nodes. The GSC also needs to change the group key (Kgrp) which provides access to the multicast transmissions for the existing members. (MITTRA, col. 8, lines 15-25.) Once the new Kgrp key has been generated by the GSC, the current multicast group and the joining member all need to be apprised by the new Kgrp key. (MITTRA, col. 8, lines 23-25.) In col. 8, lines 25-32, MITTRA continues to state that

To do this the GSC **sends a multicast transmission** containing the new Kgrp encrypted using the old Kgrp to the current multicast group telling them to now use the new Kgrp. This assumes that all senders are also receivers; if this is not the case, senders that are not also receivers need to be notified individually **using separate secure channels** the GSC maintains **with each of the senders**.
(Emphasis added.)

Thus, the above passage from MITTRA makes it clear that the GSC distributes the new Kgrp key to the multicast group members by sending a multicast message or over secure point-to-point channels.

In contrast, Claim 1 includes the feature of determining a new group session key by replicating a branch of the second binary tree, where the second binary tree represents the members of the multicast group. Thus, in Claim 1 the new group session key is determined by replicating a branch of a binary tree. Neither the above passage nor any other passage from MITTRA describes or suggests that replication is used in determining the new Kgrp key. On the contrary. By describing that the new Kgrp key is distributed in a multicast transmission or over a point-to-point channel, MITTRA in fact teaches away from the above feature of Claim 1. Further, MITTRA does not describe or suggest that multicast group members are represented in

a binary tree that is stored in a particular domain of a plurality of domains of a directory service. In fact, there is absolutely nothing in MITTRA that describes or suggests a directory service with a plurality of domains.

For these reasons, the assertion in the final Office Action that MITTRA describes the above feature of Claim 1 is incorrect from a technology standpoint and is therefore a clear error.

B. MITTRA does not teach or suggest the features of Claim 1 of: (1) representing a plurality of multicast proxy service nodes in a first binary tree, where each node of the first binary tree is associated with a domain of a plurality of domains of a directory service that is distributed across a wide-area network; and (2) creating and storing a second binary tree in a particular domain of the plurality of domains, where the second binary tree represents the plurality of member nodes.

Contrary to the assertion in the final Office Action, there is absolutely nothing in MITTRA that describes or suggests a directory service and a plurality of domains thereof. Thus, MITTRA cannot possibly describe or suggest that the feature of Claim 1 of a first binary tree that is associated with a particular domain of a directory service. Further, there is nothing in MITTRA that describes or suggests the feature of Claim 1 of creating and storing a second binary tree in a particular domain of the plurality of domains, where the second binary tree represents a plurality of member nodes.

The final Office Action asserts that the above features of Claim 1 are described in col. 6, lines 3-38 of MITTRA. This assertion is incorrect.

In col. 6, lines 3-38, MITTRA describes Figs. 1 and 2 which are block diagrams of systems that include a GSC, senders, receivers, and Trusted Intermediary (TI) servers. While Figs. 1 and 2 of MITTRA may be illustrating systems in which multicast communications may be sent among nodes organized in groups and sub-groups, there is absolutely nothing in MITTRA that describes or suggests that the groups or sub-groups of nodes belong to a plurality of domains of a directory service. Since neither Figs. 1-3 nor any passage of MITTRA describe or suggest a directory service and a plurality of domains thereof, MITTRA cannot possibly describe the features of Claim 1 of: (1) representing a plurality of multicast proxy service nodes in a first binary tree, where each node of the first binary tree is associated with a domain of a plurality of domains of a directory service that is distributed across a wide-area network; and (2)

creating and storing a second binary tree in a particular domain of the plurality of domains, where the second binary tree represents the plurality of member nodes.

To put it simply, MITTRA does not describe or suggest any binary trees that represent plurality of nodes, where the binary trees are associated with and/or stored in domains of a directory service. For this reason, MITTRA does not describe or suggest the above features of Claim 1.

For the foregoing reasons, the rejection of Claim 1 under 35 U.S.C. § 102(b) over MITTRA is based on clear errors. Reversal of this rejection of Claim 1 is respectfully requested.

2. Rejection of Claims 59, 81, and 102 over MITTRA.

The final Office Action rejected independent Claims 59, 81, and 102 over MITTRA based on a similar rationale as the rejection of Claim 1.

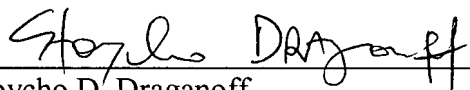
Claims 59, 81, and 102 include features similar to the features of Claim 1 discussed above, except in the context of a computer-readable medium, an apparatus, and a system. For this reason and for the reasons discussed above with respect to Claim 1, MITTRA does not describe or suggest all features of Claims 59, 81, and 102. Thus, the rejections of Claims 59, 81, and 102 under 35 U.S.C. § 102(b) over MITTRA are based on clear errors. Reversal of rejections of Claims 59, 81, and 102 is respectfully requested.

Further, reconsideration and allowance of all pending claims is hereby respectfully requested.

Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP

Dated: September 7, 2007


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on September 7, 2007

by


Teresa Austin